Patent claims

1. A method for the diagnosis, early detection, risk estimation and monitoring of the course of diseases, wherein the content of apolipoprotein C-I and/or of derivatives thereof is determined in a serum or plasma sample from a human patient and the presence of a disease is concluded on the basis of a result of the determination which differs significantly from the value range determined for normal healthy persons.

2. The method as claimed in claim 1, wherein that fraction of the total apolipoprotein C-I present in a sample which has the ability to bind to hydrophobic molecular structures ("free apolipoprotein C-I"), is determined.

3. The method as claimed in claim 1, wherein that fraction of the total apolipoprotein C-I present in a sample which is detectable by direct determination in the sample using an immunoassay of the sandwich type ("apolipoprotein C-I immunoreactivity") is determined.

4. The method as claimed in any of claims 1 to 3, wherein it is carried out for the diagnosis, early detection, risk estimation and monitoring of the course of diseases which are selected from the group consisting of cancer diseases, sepsis, acute cardiac diseases, diabetes, Graves' disease and Crohn's disease.

5. The method as claimed in any of claims 1 to 4, wherein it is carried out for the diagnosis, early detection, risk estimation and monitoring of the course of sepsis and correlates a proportion of apolipoprotein C-I which is significantly reduced compared with normal healthy persons and binds to hydrophobic molecular structures ("free apolipoprotein C-I"), and/or a reduced apolipoprotein C-I immunoreactivity in a serum or plasma sample of the patient with a septic condition.

6. The method as claimed in any of claims 1 to 4, wherein it is carried out for the diagnosis, early detection, risk estimation and monitoring of the cause of a cancer disease and correlates a proportion of apolipoprotein C-I which is significantly reduced compared with normal healthy persons and binds to hydrophobic molecular structures ("free apolipoprotein C-I") and an increased apolipoprotein C-I immunoreactivity in a serum or plasma sample of the patient with a cancer disease.

7. The method as claimed in claim 6, wherein, when an increased lipoprotein C-I immunoreactivity is found in a serum or plasma sample of a patient the measured value is checked by an additional control determination in which a check is carried out to determine whether the value for the determinable immunoreactivity in the sample is significantly changed by treatment of the sample with an adsorbent with hydrophobic surfaces, and wherein the presence of a cancer disease is concluded with high probability when the value does not deviate or does not deviate significantly from the original measured value.

8. The method as claimed in any of claims 1 to 7, wherein apolipoprotein C-I which binds to hydrophobic molecular structures ("free apolipoprotein C-I") is determined by subjecting a serum or plasma sample to hydrophobic interaction chromatography, in which apolipoprotein C-I is bound to the chromatography material, and then determining apolipoprotein C-I in the eluted protein fraction.

9. The method as claimed in claim 8, wherein octylsepharose is used as chromatography material, unbound constituents of the sample are removed by washing the chromatography material, the bound proteins are eluted with a dilute acid, in particular acetic acid, and the amount of apolipoprotein C-I in the eluate is then determined by means of HPLC and/or immunodiagnostically.

10. The use of apolipoprotein C-I for the preparation of a medicament to be administered by injection and intended for the therapeutic treatment of sepsis or of cancer diseases.

Abstract

A method for the diagnosis, early detection, risk estimation and control of the course of diseases, wherein the amount of apolipoprotein C-I and/or derivatives thereof is determined in a serum or plasma sample from a human patient and it is possible to conclude as to the presence of a disease, particular a tumoral disease or sepsis, on the basis of a result deviating significantly from the value range determined for normal healthy persons. The invention also relates to the use of apolipoprotein C-I in the therapy and prevention of diseases wherein the amount of or binding ability of apolipoprotein C-I in the blood of sick persons is significantly different from that of normal persons.